

2. Serial No. 09/169,836 entitled "Personalizing Rich Media Presentations Based on User Response to the Presentation", filed October 9, 1998 (SE9-98-028).

3. Serial No. 09/100,418 entitled "Progressive to Relieve Delivery of Interactive Descriptions and Render it for Electronic Publishing of Merchandise" filed June 20, 1998 (SE9-98-004).

4. Serial No. 09/100,418 entitled "System And Method For Tracking User Interations And Navigation During Rich Media Presentations", filed June 20, 1998(SE9-99-011/1963-7344).

5. Serial No. 09/569,875 entitled "Method for Non-linear Transformation and Interpolation for Unifying Hotlinks Between Heterogeneous Media Representations", filed May 12, 2000 (SE9-99-004).

~~Page 2, second paragraph that continues to page 3. first and second paragraphs),
REPLACE as follows,~~

In recent years, there has been a sizeable growth in the use of rich media over the World Wide Web as more and more individuals and institutions are beginning to realize the web's potential in a broad range of applications including electronic commerce, education training, news, etc. Examples of rich media include animation, audio, 3-D, panoramas, and videos. There are two apparent clusters of rich media technology. One at the low end and the other at the high end which hampers effective deployment of some rich media in Internet based applications. The "low end" cluster comprises static images and simple non-interactive animations (typically animated GIs) which are easy to deploy and therefore have widespread usage. The "high end"

clusters comprises richer and more natural experiences with larger interactivities, such as panoramas, 3-D, streaming audio/video, and composite media (e.g., MPEG-4), but the difficulty of deployment has limited widespread usage. A novel scaleable architecture called Hot Media bridges the gap between the two clusters thereby achieving widespread web penetration. A key feature of the technology is a suitable delivery file format that can contain heterogeneous compositions of media bit streams as well as meta data that defines behavior, composition and interaction semantics. The delivery file format enables the creation of lightweight single file representation of interactive, multistage presentations resulting in multiple media type contents. At the core of Hot Media client is a smart content algorithm that infers media types from the incoming data stream and fetches the media renderer components, user-interface components and hyper-linked action components, all just in time, resulting in progressive and context driven enrichment of the user experience. Further details related to Hot Media architecture are described in Serial No. 09/376,102 entitled "Framework For Progressive Hierarchical and Adaptive Delivery Rich Media Presentation and Associated Meta Data", filed August 17, 1999 (SE9-98-033), *supra*.

AP

Often instances of rich media incorporate links to other presentations to expand a user experience. The process of clicking on a link in a media for transfer to the other presentation is referred to as "hot linking" or "hyper linking" is further described in USP 5,841,978 entitled "Networking Using Steganographically Embedded Data Objects" issued November 24, 1998 and USP 5,918,012 entitled "Hyper Linking Time Based Data" issued January 29, 1999. Sometimes times rich media are non-linkable to other presentations. It would be desirable to have non-linkable rich media supplemented to provide hot linking to other presentations. Alternatively, it would be desirable to de-couple hotlinking from media.

25

X

Typically, hot links have been tightly integrated into supported media. For example, NetShow available from Microsoft supports hot links in the temporal domain. All hot links are written to its AFS file format along with the media. RealNetwork G2 uses Synchronized Multimedia Integration Language (SMIL) for a composition of temporal hot links. Neither RealNetworks nor NetShow support hot links other than in the temporal domain. Veon's integration with RealNetwork G2 provides both spatial and temporal hot links and uses SMIL as output format. None of the above-mentioned supported media provide a generic plug and play framework for non-linkable media to become hyper linkable. Nor does such hot link support media provide, in real-time, a separate hot link meta data comprised in advance and delivered as a transparent panel or hot link canvas for implementation of hot linking in otherwise non-linkable media.

C Page 4, third and fourth paragraphs, REPLACE as follows:

Another object is a multimedia network and method of operation providing an overlay canvas for decoupling hot links in accompanying media.

A³ Another object is a hot link canvas as an overlay in a multimedia network composed in advance and delivered with rich media for implementing hot linking in accompanying non-linkable media or de-coupling hotlinking in accompanying media otherwise linkable.

C Page 6, third and fourth paragraphs (that continues to page 7), REPLACE as follows:

A⁴ In Figure 1, a multimedia information system 100 implements Hot Media architecture and includes an HTTP or dedicated server 102 coupled to a multimedia network 104, typically the Internet. The server is further coupled to a storage medium 106 which stores presentation

files in rich media created by standard authoring tools for delivery to a client station 108 coupled to the network and serving a user 110. The client station includes a presentation and user interaction logic unit 112 accessed by the user through a client terminal device 114. The presentation files 104 are supplied to the client station as streaming data on presentation bus 116. The user's interaction with the presentation data is returned to the server 102 as interaction data on bus 118. The presentation files and interaction data are exchanged in the network between the server and the client station using standard HTTP protocols. A user interaction tracking server 120 monitors the user's intentions, preferences and attitudes with respect to the presentation files and exchanges data with the server 102. The tracking server is more fully described in Serial No. 09/404,163 entitled "System And Method For Tracking User Interations And Navigation During Rich Media Presentations", filed September 7, 1999 (SE9-99-011/1963-7344), *supra*.

A⁴

Figure 2 shows a Hot Media presentation file 200 in a framework 201 which is essentially a sequence of frames types comprising header 202, thumbnail 204, meta 206, media 208, and an end of stream 212. The first frame is the header frame 202. The header frame is actually followed by the thumbnail frame 204. After these frames a sequence of other frames occurs and in no pre-mandated order or number. The header frame 202 is the only one whose presence is mandatory in the format. The most degenerate yet useful version would have a header frame followed by a thumbnail frame 204. Media frames 208 appear in all other instances. Meta frames 206 are present only in cases where non-default behavior and configuration are desired on cases where hyper linked action semantics are to be incorporated. All frames have a similar 12 bit initial section that enables a uniform procedure for their identification to a type and frame label as well as the determination of their size. The Hot Media



A⁴ file format is created to have minimum overhead and maximum modularity. The format makes it suitable for optimal delivery of a low bandwidth as well as for rich experiences over high bandwidth.

C
Page 9, second paragraph, REPLACE as follows:

A⁵ Turning to Figure 3, the Client side station 106 will now be described in conjunction with processing the presentation file data stream 200. The server 102 provides a first streaming Hot Media file 300 comprising a series of frames 301₁ . . . 301_n, previously described in conjunction with Figure 2. The frames 301₁ . . . 301_n may contain meta frames with range and action subtypes. A hot media client master 303 receives the frames 300 and as soon as a meta frame is encountered with range and action subtypes, the master verifies to see if an action enabling kernel 305 has been created. If not, the master 303 obtains action enabling kernel code 304 and media object code 306 from the server 102; instantiates the code 304 in an action enabling kernel 307 and displays the code 306 as a media object 308 on the client terminal 114 (see Figure 1). The client master 303 delivers the sequence of frames 300 to their proper owner. Media frames 309 are delivered to the media object 308 handling the media track. Meta frames 310 of the range 311. Action 312 type is delivered to the action-enabling kernel 307; stored in range tables 313 and action tables 315.

C
Page 10, second paragraph, REPLACE as follows:

A⁶ As the media object 308 receives media related data 309 from the client master and commences the rendering of the media it will also be receiving user input from mouse and keyboard interaction. The media object may also be undergoing internal state changes pertaining



to completion of data loading, commencement or rendering and so forth. The media object can signal the occurrences of this user input or state changes to the action enabling kernel 307. On receiving them the action enabling kernel regards the signals as triggers and as the occasion to verify the presence of actionable situation. When relevant to the media object in question, triggers can be associated with the display of every new image, mouse activity within an applet space and media object state changes, such as the completion and loading of all images.

A^b
Associated with the action enabling kernel are the action handlers 320, 321, 322 for responding to triggers having been initiated by the media object and action handler objects 323 provided by the server. For example, action handler 320 may perform a VIEW change on the client terminal 114 (See Figure 1) in response to a change trigger. Action handler 321 may perform a DISPLAY. Action handler 322 may perform a LINK. Various other actions can be performed in response to triggers such as MOUSEMOVE, REPLACEURL, etc. Triggers generate other triggers depending on the context. For example, a MOUSE MOVE may cause a mouse to enter range or a mouse exit range depending on where the mouse was previously located.

A⁷ Page 11, first paragraph, REPLACE as follows:

Further details of the construction and operation of the Client station in the Hot Media Architecture of Figure 1 are described in Serial No. 09/169,836 entitled "Personalizing Rich Media Presentations Based on User Response to the Presentation", filed October 9, 1998 (SE9-98-028), *supra*.

